In the Claims

Please amend the claims as follows:

We claim:

1-6. (Cancelled).

7. (Currently Amended) A method for the catalytic partial oxidation of hydrocarbon fuel comprising:

feeding a feed gas mixture comprising an oxygen containing gas and a hydrocarbon fuel through ~~at least one~~a plurality of catalytic partial oxidation reactors disposed in a shell parallel to and spaced from one another such that each is offset from another;

reacting the feed gas mixture in the ~~at least one~~ plurality of catalytic partial oxidation ~~reactor~~reactors in the presence of an oxidation catalyst to convert the feed gas mixture to an exit gas mixture of hydrogen and carbon monoxide; and

passing a heat exchange fluid through the shell and past the ~~at least one~~ plurality of catalytic partial oxidation ~~reactor~~reactors with the heat exchange fluid in the shell flowing in the same direction of reactant flow in the catalytic partial oxidation ~~reactor~~reactors ~~tube~~ such that heat from partial oxidation in the ~~at least one~~plurality of catalytic partial oxidation ~~reactor~~reactors transfers from the ~~at least one~~plurality of catalytic partial oxidation ~~reactor~~reactors to the heat exchange fluid in the shell.

8. (Original) A method as in Claim 7, wherein the hydrocarbon fuel is a heavy hydrocarbon fuel.

9. (Original) A method as in Claim 8, wherein said heavy hydrocarbon fuel comprises a plurality of hydrocarbon molecules, with substantially all of said molecules each containing at least 6 carbon atoms.

10. (Original) A method as in Claim 8, wherein said heavy hydrocarbon fuel is selected from the group consisting of gasoline, kerosene, jet fuel, and diesel fuel.

11. (Original) A method as in Claim 7, wherein said oxidation catalyst is a noble metal.

12. (Original) A method as in Claim 7, wherein the partial oxidation reaction is maintained at a temperature greater than about 900°C.

13. (Currently Amended) A method for producing electric power comprising the steps of:

feeding a feed gas mixture comprising an oxygen containing gas and a hydrocarbon fuel through ~~at least one~~a plurality of catalytic partial oxidation ~~reactor~~reactors disposed in a shell parallel to and spaced from one another such that each is offset from another;

reacting the feed gas mixture in the ~~at least one~~ plurality of catalytic partial oxidation ~~reactor~~reactors in the presence of an oxidation catalyst to convert the feed gas mixture to an exit gas mixture of hydrogen and carbon monoxide; and

passing a heat exchange fluid through the shell and past the ~~at least one~~ plurality of catalytic partial oxidation ~~reactor~~reactors with the heat exchange fluid in the shell flowing in the same direction of reactant flow in the catalytic partial oxidation ~~reactor~~reactors ~~tube~~ such that heat from partial oxidation in the ~~at least one~~plurality of catalytic partial oxidation ~~reactor~~reactors transfers from the ~~at least one~~plurality of catalytic partial oxidation ~~reactor~~reactors to the heat exchange fluid in the shell; and

directing said exit gas mixture to a solid oxide fuel cell system.

14. (Original) A method as in Claim 13, wherein the hydrocarbon fuel is a heavy hydrocarbon fuel.

15. (Original) A method as in Claim 14, wherein said heavy hydrocarbon fuel comprises a plurality of hydrocarbon molecules, with substantially all of said molecules each containing at least 6 carbon atoms.

16. (Original) A method as in Claim 14, wherein said heavy hydrocarbon fuel is selected from the group consisting of gasoline, kerosene, jet fuel, and diesel fuel.

17. (Original) A method as in Claim 13, wherein said oxidation catalyst is a noble metal.

18. (Original) A method as in Claim 13, wherein the partial oxidation reaction is maintained at a temperature greater than about 900°C.